



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,606	08/16/2001	Ullrich Thiedig	64251-030	3007

7590 11/22/2005

Robert E. Muir, Esq.
Husch & Eppenberger, LLC
Suite 1400
401 Main Street
Peoria, IL 61602-1241

EXAMINER

PETERSON, KENNETH E

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

E

Office Action Summary	Application No. 09/931,606	Applicant(s) THIEDIG ET AL.	
	Examiner Kenneth E. Peterson	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 7-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 14-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/11/05 has been entered.

Priority

2. Acknowledgement is made to applicant's petition under 37 CFR 1.55(c), said petition has been granted.

Claim Rejections - 35 USC § 112

3. Claims 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The locations of the 1st, 2nd, 3rd and 4th regions of the tunnel are indefinite. How is the 1st region's "front surface of the tunnel at the face" different from the 2nd region's "front portion of the tunnel adjacent to the face"? How is the 1st region's "central portions of side walls" and "central region of the tunnel" different from the 4th region's "central region of the exposed side wall"?

What does it means for the lamps to "deliver diffuse radiation with an intensity which is reduced towards the face"? Does this simply mean that the lamps emit non-

parallel rays? In comparison, lasers have parallel rays that theoretically do not reduce in intensity as they advance.

For the 2nd region, the lamps "deliver radiation directed rearwards away from the face", but wouldn't rearward be generally parallel to the face, not away from it? Only "upward" would be "away from the face".

It is not clear if each region is claiming a different lamp, or if it is merely discussing how light bounces around in the tunnel.

In general, the "region" concept is fraught with ambiguities. It is not clear what would or would not infringe these "regions".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 14-15, 18 and 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cresson et al., U.S. patent 5,129,298, in view of Van Devanter et al., U.S. Patent 4,557,019, or Rudy et al., U.S. Patent 4,875,254.

Cresson discloses the invention substantially as claimed, including, e.g., a separating device (16); an advance device (1/2/3/4/25/6/7) for advancing the source towards the separating device; an optical detection device (9/13, see Figure 2) for determining the face area of the source body; a plurality of lamps (14, see Figure 2) for

illuminating in a planar fashion along the longitudinal direction of the source such that the face and the surroundings of the face have an optical contrast; and wherein the optical detection device determines the area of the face by means of the said optical contrast and wherein the source body is advanced as a function of the measured face area.

Cresson lacks the tunnel for guiding the source body, wherein the tunnel includes an end adjacent the separating device and means for mounting the lamps in the tunnel. However, Rudy et al. and Van Devanter et al. both disclose that it is old and well known in the art to use tunnels for guide source bodies that include lamps mounting within and located adjacent cutting device for the purpose of minimizing the entrance of ambient light into the optical monitoring area such that the ambient light does not interfere with the optical equipment thereby increasing the accuracy of cut slices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a tunnel with lamps mounted within and adjacent the cutting device in order to guide the source body based upon more accurate optical monitoring.

It should be noted that in apparatus claims, the work piece is not given any patentable weight, because it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the orientation and shape of the workpiece could have a longitudinal direction (height) in the direction of the tunnel. Furthermore, it should be noted that the

Art Unit: 3724

phrase "the tunnel having a length substantially aligned with the longitudinal direction" does not set forth what is the intended "length". The tunnels of Van Devanter et al. and Rudy both have tunnels with both vertical and horizontal dimensions, both of which could be considered a length.

As to claim 14, the modified device of Cresson discloses, e.g., a tunnel made out of reflective material because the slot (84, see Rudy et al.) would not be necessary if the light did not reflect inside the chamber 76. In the alternative, even if it is argued that the modified device of Cresson lacks the reflective material for the tunnel, the examiner takes official notice that it is old and well known in the art to use reflective material within lighted tunnels or enclosures for the purpose of increasing the light intensity within the tunnel or enclosure by preventing the walls of the tunnel or enclosure from absorbing the light. Therefore, it would have been obvious to one of ordinary skill in the art to use reflective material in the tunnel for the purpose of ensuring more light is directed to the work instead of being absorbed by the tunnel.

As to claim 15, the modified device of Cresson discloses a tunnel with a first region (the area closest to the cutter) in which the lamps deliver diffuse radiation with an intensity which is reduced towards the face because Cresson, Rudy et al. and Van Devanter et al. all disclose lamps on opposite sides of the separating device. Therefore, the light is at its most intense closer to the light and less near the separating device.

As to claim 18, the modified device of Cresson discloses the need of having a lamp that directed shines on the advancing device (see Figure 2, the center lamp shines directly on the advancing portion (6).

As to claim 20, the modified device of Cresson discloses invention substantially as claimed as set forth above and further includes the use of a control (20) for advancing the body a distance as a function of the arc of the face.

As to claim 21, the modified device of Cresson discloses the use of a camera (13).

As to claim 22, the modified device of Cresson discloses the use of a hold down device (7).

As to claim 23, the modified device of Cresson discloses a means (the center light or either side lamp as shown in Figure 2) that is capable of illuminating the hold down device so there is no shadow and does not appear as part of the face.

As to claim 24, the modified device of Cresson discloses the need to have the separating device, advance device and light frame all inclined at approximately forty five degrees (see Figure 1).

As to claim 25, the modified device of Cresson discloses a camera at a substantially flat angle (flat relative to the separating device).

As to claim 26, the modified device of Cresson discloses the invention substantially as claimed as set forth above and further includes a camera (13) and a movable separating device intermediate the camera the lighting frame, as well as a detection device (20).

As to claims 27-28, the modified device of Cresson discloses the separating device, the advancing device and light frame all at an inclined angle at approximately forth five degrees (see Figure 1).

As to claim 29, the modified device of Cresson discloses the camera at a substantially flat angle (flat relative to the separating device).

As to claim 30, the modified device of Cresson discloses the use of a hold down device (7).

As to claim 31, the modified device of Cresson discloses the invention substantially as claimed as stated above and further in view of the use of an angled optical detection device. Moreover, as stated above the workpiece does not serve to distinguish the prior art from the instant claims. However, in the alternative even if it is argued that the modified device of Cresson lacks the optical detection device at an angle non-parallel to the longitudinal direction, the device of Rudy et al. discloses that it is old and well known in the art to use optical detection device at an angle non-parallel to the longitudinal direction of the source body for the purpose of providing an enhanced contrast. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to place the optical detection device of the modified device at an angle non-parallel to the longitudinal direction in order to provide enhanced contrast.

6. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that none of the prior art has tunnels that have "a length substantially aligned with the longitudinal direction". While the prior art tunnels may not look like Applicant's tunnels, they are tunnels nonetheless and have lengths defined by the distance to travel thru them, which would of course be the longitudinal direction.

Applicant attacks the Van Devanter reference, but this reference was only employed to teach the use of the tunnel, not for the teachings of camera or light positioning.

7. Alltho it is difficult to discern their scope, claims 16,17 and 19 may be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-4512. The examiner can normally be reached Mon-Thurs, 7:30AM-5PM

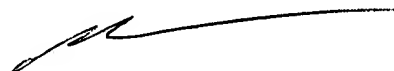
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KP

November 14, 2005



KENNETH E. PETERSON
PRIMARY EXAMINER